

I claim:

1. A surgical knife, comprising:

- a) a handle;
- b) a blade having opposing cutting edges and a longitudinal axis, the blade being attached to the handle; and
- c) a distal tip on the blade, the distal tip having a distal point,

wherein the distal tip has a shape generally described by the equation

$$w = ad^n$$

where

w is the distance from the blade's longitudinal axis to the blade's cutting edges

a is a constant of proportionality not greater than 0.5

n is an exponent approximately between 0.9 and 1.4

d is the distance along the blade's longitudinal axis from the extreme distal point of the blade tip.

2. The surgical knife of claim 1 wherein the distal tip has a thickness of approximately between 0.003 inches and 0.007 inches.

3. The surgical knife of claim 1 wherein an angle between the cutting edges is between approximately 12° and 20°.

4. The surgical knife of claim 1 wherein the distal point is slightly rounded, with a radius of less than approximately 40 microns.

5. The surgical knife of claim 4 wherein the radius is between approximately 10 microns and 40 microns.

6. The surgical knife of claim 1 wherein the blade contains a lubricious or friction reducing coating.

1           7.     A surgical knife, comprising:

2           a)     a handle;

3           b)     a blade having opposing cutting edges and a longitudinal axis, the blade  
4           being attached to the handle and containing a lubricious or friction reducing  
5           coating; and

6           c)     a distal tip on the blade, the distal tip having a slightly rounded distal point,  
7           wherein the distal tip has a shape generally described by the equation

8                                  $w = ad^n$

9           where

10          w is the distance from the blade's longitudinal axis to the blade's cutting edges

11          a is a constant of proportionality not greater than 0.5

12          n is an exponent approximately between 0.9 and 1.4

13          d is the distance along the blade's longitudinal axis from the extreme distal point of the  
14          blade tip.

1           8.     The surgical knife of claim 7 wherein the distal tip has a thickness of  
2           approximately between 0.003 inches and 0.007 inches.

1           9.     The surgical knife of claim 7 wherein an angle between the cutting edges is  
2           between approximately 12° and 20°.

1           10.    The surgical knife of claim 7 wherein the distal point has a radius of less  
2           than approximately 40 microns.

1           11.    The surgical knife of claim 10 wherein the radius is between approximately  
2           10 microns and 40 microns.